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EXAMINER	
PATEL, NIMESH	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/561,114	AMIENS, CHRISTIAN	
	Examiner	Art Unit	
	NIMESH PATEL	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 January 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Jan. 14, 2010 for claims 1 - 22 has been entered.

Claims 1 – 22 are pending in the application. Claim 23 is cancelled.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Omum*, 686

F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969). A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

These are provisional obvious-type double patenting rejections because the conflicting claims have not in fact been patent (it has notice of allowance mailed on Dec. 7, 2009).

Claims 1 and 20-22 are rejected on the ground of nonstatutory obvious-type double patenting as being over claims 1 and 19 of copending application 10/561,373 (it has notice of allowance mailed on Dec. 7, 2009).

Claim 1 of current application:

System for remote control of apparatuses, enabling the interconnection between

at least one broker and at least one remote apparatus, said at least one broker carrying out the MQIsdp protocol,

wherein the system associates to said, at least one remote apparatus, radiocommunication means comprising,

exchanging means for;
exchanging data between said radiocommunication means and said at least one remote apparatus according to a set of specific API functions;

exchanging data between said radiocommunication means and said at least one broker according to said MQIsdp;

interfacing means for interfacing between said specific API functions and said MQIsdp protocol ;

so as to enable an interconnection between said at least one broker and said at least one remote via said radiocommunication means without said at least one remote apparatus knowing said MQIsdp protocol.

Claim 1 of co-pending application 10/561,373:

System for remote control of equipment enabling interconnection between at least one server and at least one remote equipment, said at least one server carrying out the MQIsdp protocol, where MQIsdp represents an MQSeries Inteqrator SCADA Device Protocol, where SCADA represents Supervisory Control and Data Acquisition, wherein the system associates, with said at least one remote equipment, radiocommunication means comprising:

sending and receiving means for exchanging specific Attention Commands (AT commands) sent by and/or to be sent to an external application used by said at least one remote equipment, wherein said specific AT commands comprise commands for:
- connecting to said at least one server; - sending messages to said at least one server;
- receiving messages from said at least one server;
- communication means for exchanging data with said at least one server according to said MQIsdp protocol;

interface means for making an interface between said specific AT commands and said MQIsdp protocol, so as to enable an interconnection between said at least one server and said at least one remote equipment without requiring knowledge of said MQIsdp protocol in said at least one remote equipment; and

wherein, in at least a first mode, said radiocommunication means only manage signalling of a data exchange, said data being transferred directly from said at least one remote equipment to said at least one server, or vice versa.

Claim 20 of current application:

Method for remote control of apparatuses, enabling the interconnection between at least one broker and at least one remote apparatus said at least one broker carrying out the MQIsdp protocol,

wherein the method associates, to said at least one remote apparatus, radiocommunication means comprising,

exchanging means for;

exchanging data between said radiocommunication means and said at least one remote apparatus according to a set of specific API functions;

exchanging data between said radiocommunication means and said at least one broker according to said MQIsdp protocol;

interfacing means for interfacing between said specific API functions and said

MQIsdp protocol;

so as to enable an interconnection between said at least one broker and said at least one remote via said radiocommunication means without said at least one remote apparatus knowing said MQIsdp protocol.

Claim 1 of co-pending application 10/561,373:

System for remote control of equipment enabling interconnection between at least one server and at least one remote equipment, said at least one server carrying out the MQIsdp protocol, where MQIsdp represents an MQSeries Inteqrator SCADA Device Protocol, where SCADA represents Supervisory Control and Data Acquisition, wherein the system associates, with said at least one remote equipment, radiocommunication means comprising:

sending and receiving means for exchanging specific Attention Commands (AT commands) sent by and/or to be sent to an external application used by said at least one remote equipment, wherein said specific AT commands comprise commands for:
- connecting to said at least one server; - sending messages to said at least one server;
- receiving messages from said at least one server;

- communication means for exchanging data with said at least one server according to said MQIsdp protocol;

interface means for making an interface between said specific AT commands and said MQIsdp protocol, so as to enable an interconnection between said at least one server and said at least one remote equipment without requiring knowledge of said MQIsdp protocol in said at least one remote equipment;

and wherein, in at least a first mode, said radiocommunication means only manage signalling of a data exchange, said data being transferred directly from said at least one remote equipment to said at least one server, or vice versa.

Claim 21 of current application:

A radiocommunication device comprising:

a remote apparatus; and

radiocommunication means associated with and external to said remote apparatus, the radio communication means comprising,

exchanging means for;

exchanging data between said radiocommunication means and said at least one remote apparatus according to a set of specific API functions;

exchanging data between said radiocommunication means and said at least one broker according to said MQIsdp protocol;

interfacing means for interfacing between said specific API functions and said MQIsdp protocol ;

so as to enable an interconnection between said at least one broker and said at least one remote via said radiocommunication means without said at least one remote apparatus knowing said MQIsdp protocol.

Claim 19 of co-pending application 10/561,373

Device for remote control of equipment enabling interconnection between at least one server and at least one remote equipment, said at least one server carrying out the MQIsdp protocol, where MQIsdp represents an MQSeries Inteqrator SCADA Device Protocol, where SCADA represents Supervisory Control and Data Acquisition, wherein the device associates, with said at least one remote equipment, radiocommunication means comprising:

- sending and receiving means for exchanging specific AT commands sent by and or to an external application used by said at least one remote equipment, wherein said specific AT commands comprise commands for\- - connecting to said at least one server;
- sending messages to said at least one server; - receiving messages from said at least one server;

- communication means for exchanging data with said at least one server according to said MQIsdp protocol;

- interface means for making an interface between said specific AT commands and said MQIsdp protocol, so as to enable an interconnection between said at least one server(s) and said at least one remote equipment, without requiring additional processing and / or

- data formatting means in said at least one remote equipment, and wherein, in at least a first mode, said radiocommunication means only manage signaling of a data exchange, said data being transferred directly from said at least one remote equipment to said at least one server, or vice versa.

Claim 22 of current application:

A device comprising:

a radiocommunication module; and

radiocommunication means associated with and external to the radiocommunication module, the radiocommunication means comprising,

exchanging means for;

exchanging data between said radiocommunication means and said at least one remote apparatus according to a set of specific API functions;

exchanging data between said radiocommunication means and said at least one broker according to said MQIsdp protocol;

interfacing means for interfacing between said specific API functions and said MQIsdp protocol ;

so as to enable an interconnection between said at least one broker and said at least one remote via said radiocommunication means without said at least one remote apparatus knowing said MQIsdp protocol.

Claim 19 of co-pending application 10/561,373

Device for remote control of equipment enabling interconnection between at least one server and at least one remote equipment, said at least one server carrying out the MQIsdp protocol, where MQIsdp represents an MQSeries Inteqrator SCADA Device Protocol, where SCADA represents Supervisory Control and Data Acquisition, wherein the device associates, with said at least one remote equipment, radiocommunication means comprising:

- sending and receiving means for exchanging specific AT commands sent by and or to an external application used by said at least one remote equipment, wherein said specific AT commands comprise commands for\- - connecting to said at least one server;
- sending messages to said at least one server; - receiving messages from said at least one server;

- communication means for exchanging data with said at least one server according to said MQIsdp protocol;

- interface means for making an interface between said specific AT commands and said MQIsdp protocol, so as to enable an interconnection between said at least one server(s) and said at least one remote equipment, without requiring

additional processing and / or

- data formatting means in said at least one remote equipment, and wherein, in at least a first mode, said radiocommunication means only manage signaling of a data exchange, said data being transferred directly from said at least one remote equipment to said at least one server, or vice versa.

Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1 and 20 – 22 of the present application are broadening from claims 1 and 19 of copending application 10/561,114. For example claim 3 (which depends on claim 1) of copending application 10/561,373 teaches every limitation of claim 5 of the current application.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to omit elements when the remaining elements perform the same. A person of ordinary skill in the art could have arrived at the present claims by omitting the details of the patented claims. See In re Karlson, 136 USPQ, 184 (CCPA) 136 USPQ 184, decided January 16, 1963. (Omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before).

Response to Arguments

3. Applicant's arguments filed on Jan. 14, 2020 for claims 1 – 22 have been fully

considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1 – 3, 8, and 11 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andy XP – 002283767 March 2002, and in view of Ichihara, US Patent: 5,640,413 Jun. 17, 1997.

Regarding claim 1, Andy discloses,

system for remote control of apparatuses (telemetry integration applications – page 2, lines 8 – 10, page 4, lines 9 – 21, page 9, line 8), enabling the interconnection between at least one broker (broker, page 5, line 3) and at least

one remote apparatus (client, page 5, line 5), said at least one broker carrying out the MQIsdp protocol (the MQ SCADA protocol node is included in WebSphere MQ Integrator, version 2.02 and higher. This allows remote device to connect to the broker using the MQIsdp protocol – page 2, lines 16 – 24, page 5, lines 1 – 7, page 9, lines 1 – 8),

wherein the system associates to said, at least one remote apparatus, radiocommunication means (Arcom director units communicates with the devices using 20-mile line-of-sight, spread-spectrum wireless links from Data-Linc Group – page 5, lines 12 – 17, page 12, lines, 2 – 4. Telemetry data comes from variety of remote monitoring stations, such as oil and gas pipeline sensors, transmitted using TCP/IP over telecommunications links, ranging from dial-up phone connection to satellite link – page 3, lines 9 - 11) comprising,

exchanging means (Acrom director units communicates with the devices using 20-mile line-of-sight, pread-spectrum wireless links from Data-Linc Group – page 5, lines 12 – 17, page 12, lines 2 – 4) for exchanging data between said radiocommunication means and said at least one remote apparatus according to a set of specific API functions (Acrom director units communicates with the devices using 20-mile line-of-sight, pread-spectrum wireless links from Data-Linc Group – page 5, lines 12 – 17, page 12, lines 2 – 4. Telemetry data comes from variety of remote monitoring stations, such as oil and gas pipeline sensors,

transmitted using TCP/IP over telecommunications links, ranging from dial-up phone connection to satellite link – page 3, lines 9 - 11);

exchanging data between said radiocommunication means and said at least one broker according to said MQIsdp protocol (the protocol has a very basic publish/subscribe verb set: connect, disconnect, subscribe, and unsubscribe; and an application level keepalive: pingrqeuest and pingresponse - page 9, lines 24 - 27. When an MQIsdp client connects to the broker, it can optionally specify a special message and topic, and a keepalive time, specified in seconds. If the client fails to publish anything to the broker during the keepalive time the broker assumes the client was unexpectedly disconnected and closes the client connection. The broker then publishes the special message using the specified topic on behalf of the client – page 10, lines 20 – 27. The application programming interface - API presented to applications on the client device - page 9, lines 15 – 17, page 10, lines 1 – 4);

interfacing means for interfacing between said specific API functions and said MQIsdp protocol (the MQIsdp protocol specification is deliberately nonprescriptive regarding the application programming interface – API presented to applications to the client device - page 9, lines 9 – 24, page 5, lines 1 – 7);

so as to enable an interconnection between said at least one broker and said at

least one remote via said radiocommunication means (the protocol has a very basic publish/subscribe verb set: connect, disconnect, publish, subscribe, unsubscribe – page 3, lines 1 – 8, page 3, 22 – 24, page 5, lines 1 – 7, page 8, lines 14 – 32, page 9, lines 24 – 27),

but, is silent on, "without said at least one remote apparatus knowing said MQIsdp protocol".

Inchihara teaches, the base station having CDMA transmitter for transmitting downlink communication to the mobile station and the TDMA receiver for receiving uplink communication from the mobile station (Fig. 3, ABSTRACT, column 2, line 24 through column 3, line 2, column 3, line 66 through column 4, line 28, claims 1, 2).

It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify monitoring and telemetry devices as part of enterprise information resources (Andy, page 2, lines 8 – 10, page 4, lines 9 – 21, page 9, line 8), would have incorporated the mixed type digital mobile communication in which CDMA method is used for a down link, and the TDMA is used for uplink of Ichihara (Ichihara, Fig. 3, where uplink and down link communication using different kinds of signals), for considering a mixed type of a digital mobile communication system in which the CDMA method is used for a down line, and

the TDMA method is used for a up line that will have effective utilization of CDMA downlink, and TDMA uplink properties (Ichihara, column 1, line 52 through column 2, line 13).

Regarding claim 2, Andy discloses,

system for remote control of apparatuses according to claim 1, wherein said radiocommunication means include a radiocommunication module, grouping together on a single substrate all of the radiofrequency and baseband data processing means, as well as means for managing said set of specific API functions and said at least one application (Arcom director units communicates with the devices using 20-mile line-of-sight, spread-spectrum wireless links from Data-Linc Group – page 5, lines 12 – 17, page 8, lines 31 – 32, page 12, lines, 2 – 11, page 12, lines 16 - 20).

Regarding claim 3, Andy discloses,

system for remote control of apparatuses according claim I, wherein said radiocommunication means integrate said MQIsdp protocol in the form of a library, defining said set of specific API functions (Arcom director units communicates with the devices using 20-mile line-of-sight, spread-spectrum wireless links from Data-Linc Group – page 5, lines 12 – 17, page 8, lines 31 –

32, page 12, lines, 2 – 11, page 12, lines 16 – 20).

Regarding claim 8, Andy discloses,

system for remote control of apparatuses according to claim I, wherein said set of specific API functions includes functions enabling (the MQ SCADA protocol node is included in WebSphere MQ Integrator, version 2.02 and higher. This allows remote device to connect to the broker using the MQIsdp protocol – page 2, lines 16 – 24, page 5, lines 1 – 7, page 9, lines 1 – 8):

- connection to one of said at least one broker (the MQ SCADA protocol node is included in WebSphere MQ Integrator, version 2.02 and higher. This allows remote device to connect to the broker using the MQIsdp protocol – page 2, lines 16 – 24, page 5, lines 1 – 7, page 9, lines 1 – 8);
- sending of messages (Arcom director units communicates with the devices using 20-mile line-of-sight, spread-spectrum wireless links from Data-Linc Group – page 5, lines 12 – 17, page 12, lines, 2 – 4. The protocol has a very basic publish/subscribe verb set: connect, disconnect, publish, subscribe, unsubscribe – page 3, lines 1 – 8, page 3, 22 – 24, page 5, lines 1 – 7, page 8, lines 14 – 32, page 9, lines 24 – 27);
- receiving of messages (Arcom director units communicates with the devices using 20-mile line-of-sight, spread-spectrum wireless links from Data-Linc

Group – page 5, lines 12 – 17, page 12, lines, 2 – 4. The protocol has a very basic publish/subscribe verb set: connect, disconnect, publish, subscribe, unsubscribe – page 3, lines 1 – 8, page 3, 22 – 24, page 5, lines 1 – 7, page 8, lines 14 – 32, page 9, lines 24 – 27. Also, compute values from input message content – page 8, line26);

- configuration of at least one parameter (the protocol has a very basic publish/subscribe verb set: connect, disconnect, publish, subscribe, unsubscribe – page 3, lines 1 – 8, page 3, 22 – 24, page 5, lines 1 – 7, page 8, lines 14 – 32, page 9, lines 24 – 27).

Regarding claim 11, Andy discloses,

system for remote control of apparatuses according to claim I, wherein said set of specific (API) functions includes an initialisation function restoring default parameters, which must be called at least once before the use of other - API functions (the protocol has a very basic publish/subscribe verb set: connect, disconnect, publish, subscribe, unsubscribe – page 3, lines 1 – 8, page 3, 22 – 24, page 5, lines 1 – 7, page 8, lines 14 – 32, page 9, lines 24 – 27).

Regarding claim 12, Andy discloses,

system for remote control of apparatuses according to claim I, wherein said set of

specific - API functions includes a function called when an IP connection has been established (the protocol has a very basic publish/subscribe verb set: connect, disconnect, publish, subscribe, unsubscribe – page 3, lines 1 – 8, page 3, 22 – 24, page 5, lines 1 – 7, page 8, lines 14 – 32, page 9, lines 24 – 27).

Regarding claim 13, Andy discloses,

system for remote control of apparatuses according to claim I, wherein the system includes a function of establishing a connection with one of said brokers making it possible to define parameters of said connection, and a function for disconnecting said connection (the protocol has a very basic publish/subscribe verb set: connect, disconnect, publish, subscribe, unsubscribe – page 3, lines 1 – 8, page 3, 22 – 24, page 5, lines 1 – 7, page 8, lines 14 – 32, page 9, lines 24 – 27).

Regarding claim 14, Andy discloses,

system for remote control of apparatuses according to claim 13, wherein said function of establishing a connection makes it possible to select a transmission mode from at least two (the MQ SCADA protocol node is included in WebSphere MQ Integrator, version 2.02 and higher. This allows remote device to connect to the broker using the MQIsdp protocol – page 2, lines 16 – 24, page 5, lines 1 – 7,

page 9, lines 1 – 8. Typical application scenario – farmers walk their fields with a Global System for Mobile Communications - GSM connected Palm Pilot - page 8, left column).

Regarding claim 15, Andy discloses,

system for remote control of apparatuses according to claim I, wherein the system includes a function for sending a message to one of said brokers (the protocol has a very basic publish/subscribe verb set: connect, disconnect, publish, subscribe, unsubscribe – page 3, lines 1 – 8, page 3, 22 – 24, page 5, lines 1 – 7, page 8, lines 14 – 32, page 9, lines 24 – 27).

Regarding claim 16, Andy discloses,

system for remote control of apparatuses according to claim 1, wherein the system includes a function for subscribing to one of said brokers, and a function for unsubscribing to said broker (the protocol has a very basic publish/subscribe verb set: connect, disconnect, publish, subscribe, unsubscribe – page 3, lines 1 – 8, page 3, 22 – 24, page 5, lines 1 – 7, page 8, lines 14 – 32, page 9, lines 24 – 27).

Regarding claim 17, Andy discloses,

system for remote control of apparatuses according to claim I, wherein the system includes at least one function for requesting information on at least one aspect of a communication in progress (the protocol has a very basic publish/subscribe verb set: connect, disconnect, publish, subscribe, unsubscribe, and an application level keepalive: pingrequest and pingresponse. Message acknowledgement verbs are used to manage the assured message delivery – page 3, lines 1 – 8, page 3, 22 – 24, page 5, lines 1 – 7, page 8, lines 14 – 32, page 9, lines 24 – 27).

Regarding claim 18, Andy discloses,

system for remote control of apparatuses according to claim 17, wherein the system includes at least one of the functions belonging to the group including:
- a function for inquiring about the status of a connection (the protocol has a very basic publish/subscribe verb set: connect, disconnect, publish, subscribe, unsubscribe, and an application level keepalive: pingrequest and pingresponse. Message acknowledgement verbs are used to manage the assured message delivery – page 3, lines 1 – 8, page 3, 22 – 24, page 5, lines 1 – 7, page 8, lines 14 – 32, page 9, lines 24 – 27, page 11, lines 5 - 17);

- a function for inquiring about the status of a given message (the protocol has a very basic publish/subscribe verb set: connect, disconnect, publish,

subscribe, unsubscribe, and an application level keepalive: pingrequest and pingresponse. Message acknowledgement verbs are used to manage the assured message delivery – page 3, lines 1 – 8, page 3, 22 – 24, page 5, lines 1 – 7, page 8, lines 14 – 32, page 9, lines 24 – 27);

- a function for inquiring about the current size of a queue (the protocol has a very basic publish/subscribe verb set: connect, disconnect, publish, subscribe, unsubscribe, and an application level keepalive: pingrequest and pingresponse. Message acknowledgement verbs are used to manage the assured message delivery – page 3, lines 1 – 8, page 3, 22 – 24, page 5, lines 1 – 7, page 8, lines 14 – 32, page 9, lines 24 – 27); and

- a function for inquiring about the space available in a queue (the protocol has a very basic publish/subscribe verb set: connect, disconnect, publish, subscribe, unsubscribe, and an application level keepalive: pingrequest and pingresponse. Message acknowledgement verbs are used to manage the assured message delivery – page 3, lines 1 – 8, page 3, 22 – 24, page 5, lines 1 – 7, page 8, lines 14 – 32, page 9, lines 24 – 27).

Regarding claim 19, Andy discloses,

system for remote control of apparatuses according to claim I, wherein the

system includes a function for defining the size of a queue (WebSphere MQ offers once-and-once-only assured delivery of messages, using asynchronous queue-based model – page 7, lines26 – 28. The protocol has a very basic publish/subscribe verb set: connect, disconnect, publish, subscribe, unsubscribe, and an application level keepalive: pingrequest and pingresponse. Message acknowledgement verbs are used to manage the assured message delivery – page 3, lines 1 – 8, page 3, 22 – 24, page 5, lines 1 – 7, page 8, lines 14 – 32

Regarding claim 20, Andy discloses,

method for remote control of apparatuses (telemetry integration applications – page 2, lines 8 – 10, page 4, lines 9 – 21, page 9, line 8), enabling the interconnection between at least one broker (broker, page 5, line 3) and at least one remote apparatus (client, page 5, line 5) said at least one broker carrying out the MQIsdp protocol (the MQ SCADA protocol node is included in WebSphere MQ Integrator, version 2.02 and higher. This allows remote device to connect to the broker using the MQIsdp protocol – page 2, lines 16 – 24, page 5, lines 1 – 7, page 9, lines 1 – 8),

wherein the method associates, to said at least one remote apparatus, radiocommunication means (Arcom director units communicates with the devices using 20-mile line-of-sight, spread-spectrum wireless links from Data-Linc Group

– page 5, lines 12 – 17, page 12, lines, 2 – 4. Telemetry data comes from variety of remote monitoring stations, such as oil and gas pipeline sensors, transmitted using TCP/IP over telecommunications links, ranging from dial-up phone connection to satellite link – page 3, lines 9 - 11) comprising,

exchanging means (Acrom director units communicates with the devices using 20-mile line-of-sight, pread-spectrum wireless links from Data-Linc Group – page 5, lines 12 – 17, page 12, lines 2 – 4) for;

exchanging data between said radiocommunication means and said at least one remote apparatus according to a set of specific API functions (Acrom director units communicates with the devices using 20-mile line-of-sight, pread-spectrum wireless links from Data-Linc Group – page 5, lines 12 – 17, page 12, lines 2 – 4. Telemetry data comes from variety of remote monitoring stations, such as oil and gas pipeline sensors, transmitted using TCP/IP over telecommunications links, ranging from dial-up phone connection to satellite link – page 3, lines 9 - 11);

exchanging data between said radiocommunication means and said at least one broker according to said MQIsdp protocol (the protocol has a very basic publish/subscribe verb set: connect, disconnect, subscribe, and unsubscribe; and an application level keepalive: pingrqeuest and pingresponse - page 9, lines 24 - 27. When an MQIsdp client connects to the broker, it can optionally specify a

special message and topic, and a keepalive time, specified in seconds. If the client fails to publish anything to the broker during the keepalive time the broker assumes the client was unexpectedly disconnected and closes the client connection. The broker then publishes the special message using the specified topic on behalf of the client – page 10, lines 20 – 27. The application programming interface - API presented to applications on the client device - page 9, lines 15 – 17, page 10, lines 1 – 4);

interfacing means for interfacing between said specific API functions and said MQIsdp protocol (the MQIsdp protocol specification is deliberately nonprescriptive regarding the application programming interface – API presented to applications to the client device - page 9, lines 9 – 24, page 5, lines 1 – 7);

so as to enable an interconnection between said at least one broker and said at least one remote via said radiocommunication means (the protocol has a very basic publish/subscribe verb set: connect, disconnect, publish, subscribe, unsubscribe – page 3, lines 1 – 8, page 3, 22 – 24, page 5, lines 1 – 7, page 8, lines 14 – 32, page 9, lines 24 – 27),

but, is silent on, "without said at least one remote apparatus knowing said MQIsdp protocol".

Inchihara teaches, the base station having CDMA transmitter for transmitting downlink communication to the mobile station and the TDMA receiver for receiving uplink communication from the mobile station (Fig. 3, ABSTRACT, column 2, line 24 through column 3, line 2, column 3, line 66 through column 4, line 28, claims 1, 2).

It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify monitoring and telemetry devices as part of enterprise information resources (Andy, page 2, lines 8 – 10, page 4, lines 9 – 21, page 9, line 8), would have incorporated the mixed type digital mobile communication in which CDMA method is used for a down link, and the TDMA is used for uplink of Ichihara (Ichihara, Fig. 3, where uplink and down link communication using different kinds of signals), for considering a mixed type of a digital mobile communication system in which the CDMA method is used for a down line, and the TDMA method is used for a up line that will have effective utilization of CDMA downlink, and TDMA uplink properties (Ichihara, column 1, line 52 through column 2, line 13).

Regarding claim 21, Andy discloses,

a radiocommunication device comprising:

a remote apparatus (client, page 5, line 5. Arcom director units communicates with the devices using 20-mile line-of-sight, spread-spectrum wireless links from Data-Linc Group – page 5, lines 12 – 17, page 12, lines, 2 - 4); and

radiocommunication means associated with and external to said remote apparatus, the radio communication means (Arcom director units communicates with the devices using 20-mile line-of-sight, spread-spectrum wireless links from Data-Linc Group – page 5, lines 12 – 17, page 12, lines, 2 – 4. Telemetry data comes from variety of remote monitoring stations, such as oil and gas pipeline sensors, transmitted using TCP/IP over telecommunications links, ranging from dial-up phone connection to satellite link – page 3, lines 9 - 11) comprising,

exchanging means (Acrom director units communicates with the devices using 20-mile line-of-sight, pread-spectrum wireless links from Data-Linc Group – page 5, lines 12 – 17, page 12, lines 2 – 4) for;

exchanging data between said radiocommunication means and said at least one remote apparatus according to a set of specific API functions (Acrom director units communicates with the devices using 20-mile line-of-sight, pread-spectrum wireless links from Data-Linc Group – page 5, lines 12 – 17, page 12, lines 2 – 4. Telemetry data comes from variety of remote monitoring stations, such as oil and gas pipeline sensors, transmitted using TCP/IP over telecommunications links,

ranging from dial-up phone connection to satellite link – page 3, lines 9 - 11);

exchanging data between said radiocommunication means and said at least one broker according to said MQIsdp protocol (the protocol has a very basic publish/subscribe verb set: connect, disconnect, subscribe, and unsubscribe; and an application level keepalive: pingrqeuest and pingresponse - page 9, lines 24 - 27. When an MQIsdp client connects to the broker, it can optionally specify a special message and topic, and a keepalive time, specified in seconds. If the client fails to publish anything to the broker during the keepalive time the broker assumes the client was unexpectedly disconnected and closes the client connection. The broker then publishes the special message using the specified topic on behalf of the client – page 10, lines 20 – 27. The application programming interface - API presented to applications on the client device - page 9, lines 15 – 17, page 10, lines 1 – 4);

interfacing means for interfacing between said specific API functions and said MQIsdp protocol (the MQIsdp protocol specification is deliberately nonprescriptive regarding the application programming interface – API presented to applications to the client device - page 9, lines 9 – 24, page 5, lines 1 – 7);

so as to enable an interconnection between said at least one broker and said at least one remote via said radiocommunication means (the protocol has a very

basic publish/subscribe verb set: connect, disconnect, publish, subscribe, unsubscribe – page 3, lines 1 – 8, page 3, 22 – 24, page 5, lines 1 – 7, page 8, lines 14 – 32, page 9, lines 24 – 27),

but, is silent on, "without said at least one remote apparatus knowing said MQIsdp protocol".

Inchihara teaches, the base station having CDMA transmitter for transmitting downlink communication to the mobile station and the TDMA receiver for receiving uplink communication from the mobile station (Fig. 3, ABSTRACT, column 2, line 24 through column 3, line 2, column 3, line 66 through column 4, line 28, claims 1, 2).

It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify monitoring and telemetry devices as part of enterprise information resources (Andy, page 2, lines 8 – 10, page 4, lines 9 – 21, page 9, line 8), would have incorporated the mixed type digital mobile communication in which CDMA method is used for a down link, and the TDMA is used for uplink of Ichihara (Ichihara, Fig. 3, where uplink and down link communication using different kinds of signals), for considering a mixed type of a digital mobile communication system in which the CDMA method is used for a down line, and the TDMA method is used for a up line that will have effective utilization of CDMA

downlink, and TDMA uplink properties (Ichihara, column 1, line 52 through column 2, line 13).

Regarding claim 22, Andy discloses,

A device (the MQ SCADA protocol node is included in WebSphere MQ Integrator, version 2.02 and higher. This allows remote device to connect to the broker using the MQIsdp protocol – page 2, lines 16 – 24, page 5, lines 1 – 7, page 9, lines 1 – 8. Arcom director units communicates with the devices using 20-mile line-of-sight, spread-spectrum wireless links from Data-Linc Group – page 5, lines 12 – 17, page 12, lines, 2 - 4) comprising:

a radiocommunication module (Arcom director units communicates with the devices using 20-mile line-of-sight, spread-spectrum wireless links from Data-Linc Group – page 5, lines 12 – 17, page 12, lines, 2 – 4. Telemetry integration applications – page 2, lines 8 – 10, page 4, lines 9 – 21, page 9, line 8) and radiocommunication means associated with an external to the radiocommunication module, the radiocommunication means (Arcom director units communicates with the devices using 20-mile line-of-sight, spread-spectrum wireless links from Data-Linc Group – page 5, lines 12 – 17, page 12, lines, 2 – 4. Telemetry data comes from variety of remote monitoring stations, such as oil and gas pipeline sensors, transmitted using TCP/IP over telecommunications

links, ranging from dial-up phone connection to satellite link – page 3, lines 9 - 11) comprising,

exchanging means (Acrom director units communicates with the devices using 20-mile line-of-sight, pread-spectrum wireless links from Data-Linc Group – page 5, lines 12 – 17, page 12, lines 2 – 4) for;

exchanging data between said radiocommunication means and said at least one remote apparatus according to a set of specific API functions (Acrom director units communicates with the devices using 20-mile line-of-sight, pread-spectrum wireless links from Data-Linc Group – page 5, lines 12 – 17, page 12, lines 2 – 4. Telemetry data comes from variety of remote monitoring stations, such as oil and gas pipeline sensors, transmitted using TCP/IP over telecommunications links, ranging from dial-up phone connection to satellite link – page 3, lines 9 - 11);

exchanging data between said radiocommunication means and said at least one broker according to said MQIsdp protocol (the protocol has a very basic publish/subscribe verb set: connect, disconnect, subscribe, and unsubscribe; and an application level keepalive: pingrqeuest and pingresponse - page 9, lines 24 - 27. When an MQIsdp client connects to the broker, it can optionally specify a special message and topic, and a keepalive time, specified in seconds. If the client fails to publish anything to the broker during the keepalive time the broker

assumes the client was unexpectedly disconnected and closes the client connection. The broker then publishes the special message using the specified topic on behalf of the client – page 10, lines 20 – 27. The application programming interface - API presented to applications on the client device - page 9, lines 15 – 17, page 10, lines 1 – 4);

interfacing means for interfacing between said specific API functions and said MQIsdp protocol (the MQIsdp protocol specification is deliberately nonprescriptive regarding the application programming interface – API presented to applications to the client device - page 9, lines 9 – 24, page 5, lines 1 – 7);

so as to enable an interconnection between said at least one broker and said at least one remote via said radiocommunication means (the protocol has a very basic publish/subscribe verb set: connect, disconnect, publish, subscribe, unsubscribe – page 3, lines 1 – 8, page 3, 22 – 24, page 5, lines 1 – 7, page 8, lines 14 – 32, page 9, lines 24 – 27),

but, is silent on, "without said at least one remote apparatus knowing said MQIsdp protocol".

Inchihara teaches, the base station having CDMA transmitter for transmitting downlink communication to the mobile station and the TDMA receiver for

receiving uplink communication from the mobile station (Fig. 3, ABSTRACT, column 2, line 24 through column 3, line 2, column 3, line 66 through column 4, line 28, claims 1, 2).

It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify monitoring and telemetry devices as part of enterprise information resources (Andy, page 2, lines 8 – 10, page 4, lines 9 – 21, page 9, line 8), would have incorporated the mixed type digital mobile communication in which CDMA method is used for a down link, and the TDMA is used for uplink of Ichihara (Ichihara, Fig. 3, where uplink and down link communication using different kinds of signals), for considering a mixed type of a digital mobile communication system in which the CDMA method is used for a down line, and the TDMA method is used for a up line that will have effective utilization of CDMA downlink, and TDMA uplink properties (Ichihara, column 1, line 52 through column 2, line 13).

Claims 4-7, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andy XP – 002283767 March 2002, and in view of Ichihara, US Patent: 5,640,413 Jun. 17, 1997 and further in view of Petite US Patent: US 7,103,511 B2, Sep. 5, 2006.

Regarding claim 4, Andy and Ichihara discloses all the claimed features,

but, are silent on, system for remote control of apparatuses according to claim I, wherein at least in a first mode, said radiocommunication means manage, with said "data being transferred directly from a remote apparatus to a server, or the reverse".

Petite teaches, method for monitoring and controlling remote devices. The computer evaluates the retrieved information and identifies an appropriate control signal, and applying the control signal at a designated actuator. A computerized system for monitoring, reporting on, and controlling remote systems by transferring information signals through a wide area network. The site controller 150 may be configured such that the memory 406 includes a look-up table 414 configured for identifying the various remote and intermediate communication devices used in generating and transmitting received data transmission (ABSTRACT, Figs. 1 – 11, column 1, lines 31 – 36, column 2, line 28 through column 3, line 30, column 11, lines 11 - 15).

It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify monitoring and telemetry devices as part of enterprise information resources (combined Andy and Ichihara, wherein, Andy, page 2, lines 8 – 10, page 4, lines 9 – 21, page 9, line 8), would have incorporated monitoring and controlling remote devices of Petite (Petete, ABSTRACT, Figs. 1 – 11, column 1, lines 31 – 36, column 2, line 28 through column 3, line 30,

column 11, lines 11 - 15), for a system configured to collect, format, and control client application specific processes (Petite, column 1, lines 48 - 55).

Regarding claim 5, Andy and Ichihara discloses all the claimed features,

but, are silent on, system for remote control of apparatuses according to claim I, at least in a second mode, said radiocommunication means "manage the signaling of a data exchange and the transfer of said data, with the latter being temporarily stored in at least one buffer storage".

Petite teaches, method for monitoring and controlling remote devices. The computer evaluates the retrieved information and identifies an appropriate control signal, and applying the control signal at a designated actuator. A computerized system for monitoring, reporting on, and controlling remote systems by transferring information signals through a wide area network. The site controller 150 may be configured such that the memory 406 includes a look-up table 414 configured for identifying the various remote and intermediate communication devices used in generating and transmitting received data transmission (ABSTRACT, Figs. 1 – 11, column 1, lines 31 – 36, column 2, line 28 through column 3, line 30, column 11, lines 11 - 15).

It would have been obvious to one of ordinary skill in the art, at the time of

invention, to modify monitoring and telemetry devices as part of enterprise information resources (combined Andy and Ichihara, wherein Andy, page 2, lines 8 – 10, page 4, lines 9 – 21, page 9, line 8), would have incorporated monitoring and controlling remote devices of Petite (Petete, ABSTRACT, Figs. 1 – 11, column 1, lines 31 – 36, column 2, line 28 through column 3, line 30, column 11, lines 11 - 15), for a system configured to collect, format, and control client application specific processes (Petite, column 1, lines 48 – 55, and Andy, enrich the content of the message, or to insert or update rows in a database - page 8, lines 4 – 8, page 8, lines 28 - 30).

Regarding claim 6, Andy discloses,

system for remote control of apparatuses according to claim 5, wherein the size of said at least one buffer storage is parameterable (it also has a built-in data dictionary that stores templates for enterprise message formats, so it can perform transformations from one message format to another. Establish Open Database Connectivity – ODBC connections to Structured Query Language – SQL databases to retrieve data, which can be used to enrich the content of the message, or to insert or update rows in a database - page 8, lines 4 – 8, page 8, lines 28 - 30).

Regarding claim 7, Andy and Ichihara discloses all the claimed features,

but, are silent on, system for remote control of apparatuses according to claim 6, wherein the system operates in said "first mode when the size of said at least one buffer storage is 0, and in said second mode if not".

Petite teaches, method for monitoring and controlling remote devices. The computer evaluates the retrieved information and identifies an appropriate control signal, and applying the control signal at a designated actuator. A computerized system for monitoring, reporting on, and controlling remote systems by transferring information signals through a wide area network. The site controller 150 may be configured such that the memory 406 includes a look-up table 414 configured for identifying the various remote and intermediate communication devices used in generating and transmitting received data transmission (ABSTRACT, Figs. 1 – 11, column 1, lines 31 – 36, column 2, line 28 through column 3, line 30, column 11, lines 11 - 15). The memory 406 may also include a plurality code segments that are executed by the CPU 404, which may in large part control operation of the site controller 150 - Fig. 4, column 11, lines 41 - 56).

It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify monitoring and telemetry devices as part of enterprise information resources (combined Andy and Ichihara, wherein Andy, page 2, lines 8 – 10, page 4, lines 9 – 21, page 9, line 8), would have incorporated monitoring and controlling remote devices of Petite (Petete, ABSTRACT, Figs. 1 – 11,

column 1, lines 31 – 36, column 2, line 28 through column 3, line 30, column 11, lines 11 - 15), for a system configured to collect, format, and control client application specific processes (Petite, column 1, lines 48 – 55 and Andy, enrich the content of the message, or to insert or update rows in a database - page 8, lines 4 – 8, page 8, lines 28 - 30).

Regarding claim 9, Andy and Ichihara discloses all the claimed features,

but, are silent on, system for remote control of apparatuses according to claim 1, wherein "at least some of said specific set of specific API functions are organised so as to be capable of providing at least two operations and/or acting on at least two distinct aspects, according to a predefined parameterization".

Petite teaches, method for monitoring and controlling remote devices. The computer evaluates the retrieved information and identifies an appropriate control signal, and applying the control signal at a designated actuator. A computerized system for monitoring, reporting on, and controlling remote systems by transferring information signals through a wide area network. The site controller 150 may be configured such that the memory 406 includes a look-up table 414 configured for identifying the various remote and intermediate communication devices used in generating and transmitting received data transmission (ABSTRACT, Figs. 1 – 11, column 1, lines 31 – 36, column 2, line 28 through

column 3, line 30, column 11, lines 11 - 15).

It would have been obvious to one of ordinary skill in the art, at the time of invention, to modify monitoring and telemetry devices as part of enterprise information resources (combined Andy and Ichihara, wherein Andy, page 2, lines 8 – 10, page 4, lines 9 – 21, page 9, line 8), would have incorporated monitoring and controlling remote devices of Petite (Petete, ABSTRACT, Figs. 1 – 11, column 1, lines 31 – 36, column 2, line 28 through column 3, line 30, column 11, lines 11 - 15), for a system configured to collect, format, and control client application specific processes (Petite, column 1, lines 48 – 55 and Andy, enrich the content of the message, or to insert or update rows in a database - page 8, lines 4 – 8, page 8, lines 28 - 30).

Regarding claim 10, Andy discloses,

system for remote control of apparatuses according to claim I, wherein said set of specific API functions includes only 12 functions (the flow meter may send compressed data that's intelligible only to specific applications - page 6, lines 1 – 14, page 8, lines 13 – 32, page 9, lines 4 - 14, page 10, lines 7 - 19).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. Li teaches, communication system using OFDM for one direction and DSSS for another direction.
US PGPub: US 2002/0159422 A1 Oct. 31, 2002.

Contact Information

Any inquiry concerning this communication from the examiner should be directed to Nimesh Patel at (571) 270-1228, normally reached on Mon-Thur. 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rafael, Perez-Gutierrez, can be reached at (571) 272-7915.

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